Exh. A

MATERIAL SAFETY DATA SHEET

DOCUMENT: 09-0639-6

3M 3M Center St. Paul, Minnesota 55144-1000 1-800-364-3577 or (651) 737-6501 (24 hours)



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DIVISION: 3M SPECIALTY MATERIALS TRADE NAME: FC-1296 3M (TM) Hydrophilic Polymer Melt Additive ID NUMBER/U.P.C.: 98-0212-2713-1 00-51135-63071-6 98-0212-2714-9 00-51135-63072-3 98-0212-2842-8 00-51135-70299-4 ISSUED: March 15, 2000 SUPERSEDES: December 16, 1999

1. INGREDIENT C.A.S. NO. PERCE

FLUOROCHEMICAL POLYMER +(6301P)...... TradeSecret 49 HYDROCARBON SURFACTANT + (6302P)..... TradeSecret 49

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50
RESIDUAL ORGANIC FLUOROCHEMICALS..... Mixture
 The components of this product are in compliance with the chemica
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 notification requirements of TSCA. All applicable chemical
 ingredients in this material are listed on the European Inventory
 Existing Chemical Substances (EINECS), or are exempt polymers who
se
 monomers are listed on EINECS.
 New Jersey Trade Secret Registry Number (EIN) 04499600-+
 2. PHYSICAL DATA
_ _ _ _ _ _
BOILING POINT:.... > 150 C
VAPOR PRESSURE:..... 24.0 mmHg
                           @ 55 C
EVAPORATION RATE:..... N/A
SOLUBILITY IN WATER:.... slight
SPECIFIC GRAVITY:..... 1.135 g/ml
                           at 25 C
pH:..... N/A
VISCOSITY:..... 200 centipoise
                           at 25 C
Abbreviations: N/D - Not Determined N/A - Not Applicable CA -
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Approximately

MSDS: FC-1296 3M (TM) Hydrophilic Polymer Melt Additive March 15, 2000
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2. PHYSICAL DATA (continued)
MELTING POINT: N/A
APPEARANCE AND ODOR: Amber to dark liquid. Slight odor.
3. FIRE AND EXPLOSION HAZARD DATA
FLASH POINT:
EXTINGUISHING MEDIA: Water, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat

and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

See Hazardous Decomposition section for products of combustion.

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4. REACTIVI	TY DATA	 	

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID: Strong Oxidizing Agents, Reducing Agents.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Hydrogen Fluoride, Toxic Vapors,

Gases or Particulates.

5. ENVIRONMENTAL INFORMATION
SPILL RESPONSE:
Observe precautions from other sections. Ventilate area. Contai
nill Cover with absorbent material Collect spilled material
spill. Cover with absorbent material. Collect spilled material.
Clean up residue with an appropriate organic solvent. Read and fo llow
110W
Abbreviations: N/D - Not Determined N/A - Not Applicable CA -
Approximately
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5. ENVIRONMENTAL INFORMATION (continued)
safety precautions on the solvent label and MSDS. Place in a clo
sed
container.
RECOMMENDED DISPOSAL:
Incinerate in an industrial or commercial facility in the presence
e of

a combustible material. Combustion products will include HF.
ENVIRONMENTAL DATA: Not determined.
REGULATORY INFORMATION: Volatile Organic Compounds: N/D. VOC Less H2O & Exempt Solvents: N/A.
Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).
OTHER ENVIRONMENTAL INFORMATION: This product contains one or more organic fluorochemicals that have the potential to resist degradation and persist in the environment.
EPCRA HAZARD CLASS: FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: No .
6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Immediately wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a physician. Wash contaminated clothing before reuse and dispose of contaminated shoes.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physic ian.

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7. PRECAUTIONARY	INFORMATION

EYE PROTECTION:

Avoid eye contact. Avoid eye contact with vapor, spray, or mist. The following should be worn alone or in combination, as appropriate,

to prevent eye contact: Wear vented goggles.

SKIN PROTECTION:

Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) a

recommended: butyl rubber.

RECOMMENDED VENTILATION:

Use with appropriate local exhaust ventilation. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate

control vapor concentrations below recommended exposure limits an d/or

control spray or mist.

RESPIRATORY PROTECTION:

Avoid breathing of airborne material. Select one of the following

NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half-mask organic vapor respirator with dust/mist prefilter, full-face organic

vapor respirator with dust/mist prefilter.

PREVENTION OF ACCIDENTAL INGESTION:

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and

before eating.

RECOMMENDED STORAGE:

Store at room temperature. Keep container closed when not in use

FIRE AND EXPLOSION AVOIDANCE:

No smoking while handling this material.

HMIS HAZARD RATINGS: HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0
PERSONAL PROTECTION: X (See precautions, section
7.)

EXPOSURE LIMITS

INGREDIENT UTH SKIN*	VALUE	UNIT	TYPE	A
FLUOROCHEMICAL POLYMER + (6301P)	NONE	NONE	NONE	N
ONE	NONE	NONE	NONE	14
HYDROCARBON SURFACTANT + (6302P)	NONE	NONE	NONE	N
ONE				
RESIDUAL ORGANIC FLUOROCHEMICALS	0.1	MG/M3	TWA	3
M				
**				

* SKIN NOTATION: Listed substances indicated with efer to the potential contribution to the overall exposure		
the potential contribution to the overall exposure	s by the	cacancoas
route including mucous membrane and eye, either by airbo particularly, by direct contact with the substance. Vehicles can absorption.	an alter	
Abbreviations: N/D - Not Determined N/A - Not App Approximately	plicable	CA -
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EXPOSURE LIMITS (contin	nued)	
INGREDIENT VALUE UTUTH SKIN*	NIT	TYPE A
SOURCE OF EXPOSURE LIMIT DATA: - 3M: 3M Recommended Exposure Guidelines		
- NONE: None Established		

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8. HEALTH HAZARD DATA

EYE CONTACT:

Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

SKIN CONTACT:

Mild Skin Irritation: signs/symptoms can include redness, swelling, and itching.

This material was found to be a possible skin sensitizer in a guinea

pig maximization assay. However, since the material was tested a

s a

mixture, the specific sensitizer can not be identified and may be
an

impurity. No evidence of skin sensitization was observed in a Hum
an

Repeat Insult Patch Test (HRIPT) with polyproplene treated with 4

FC-1296.

INHALATION:

Irritation (upper respiratory): signs/symptoms can include sorene ss of the nose and throat, coughing and sneezing.

IF SWALLOWED:

Animal studies conducted on organic fluorochemicals which are present

in this product indicate effects including liver disturbances, we

ight

loss, loss of appetite, lethargy, and neurological, pancreatic, adrenal and hematologic effects. There are no known human health effects from anticipated exposure to these organic fluorochemical

when used as intended and instructed.

Ingestion may cause:

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

OTHER HEALTH HAZARD INFORMATION:

A Product Toxicity Summary Sheet is available.

This product contains one or more organic fluorochemicals that have
the potential to be absorbed and remain in the body for long periods
of time, either as the parent molecule or as metabolites, and may accumulate with repeated exposures. There are no known human heal th

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Abbı	reviations:	N/D	- Not	Determin	ned N/	A - No	ot Appl	icable.	CF	A -
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The ed	information	in	this	Material	Safety	Data	Sheet	(MSDS)	is	believ

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can affect the use and application of a 3M product, some of which a re

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particular purpose and suitable for user's method of use or application.

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